Many equipment items at a signal facility operate using separate real-time clocks. Over the course of several weeks, these clocks may vary substantially. The problem of un-synchronized clocks is particularly troublesome in accident investigations. Worse yet, it's not an uncommon practice to send a technician to each site, just to correct the clocks.
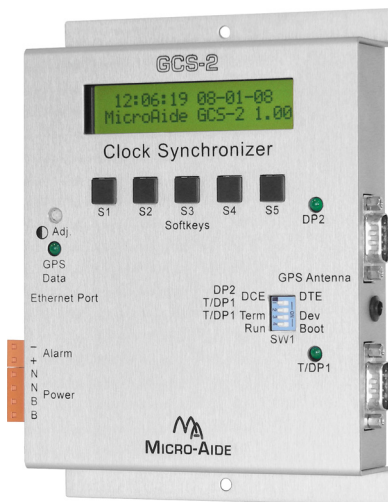
MICRO-AIDE

GCS-2
Clock Synchronizer

Use a GCS-2 from MICRO-AIDE and solve your clock sync problems

▶ The GCS-2 is equipped with a GPS receiver that provides a 100% accurate, no-drift real-time clock.

▶ The two serial ports of the GCS-2 are used to send and confirm time set commands that are compatible with various signal-related products.

▶ The GCS-2 can broadcast time sync messages using SNTP over a TCP/IP-based LAN. In this mode, the GCS-2 operates as a Time Server while simultaneously providing time set commands via the serial ports.

▶ If a Time Server is already available as part of an existing LAN, the GCS-2 can operate as an SNTP receiver, converting time sync messages into time set commands.

**Remote Access
Data Transparent Mode**

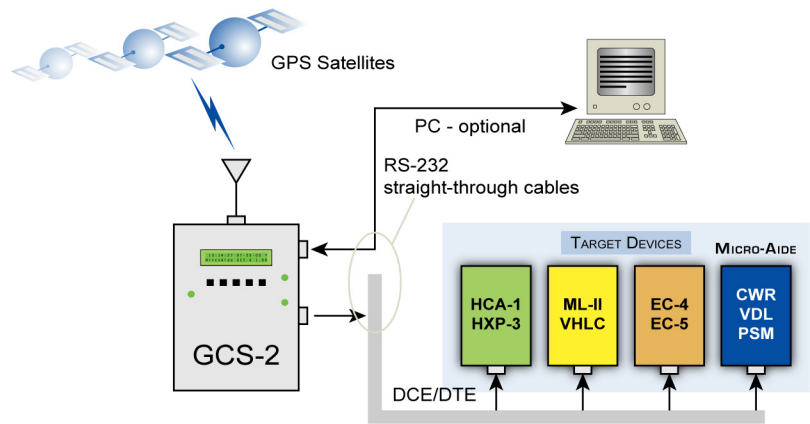*Allows users to access any device that is connected to a serial port of the GCS-2.*

MODE 1

Time Source: GPS

Time/Date Control: RS-232 connections using ASCII commands

User Interface: optional local PC connection or front panel

SNTP: not available

Device Port Access: available using local PC
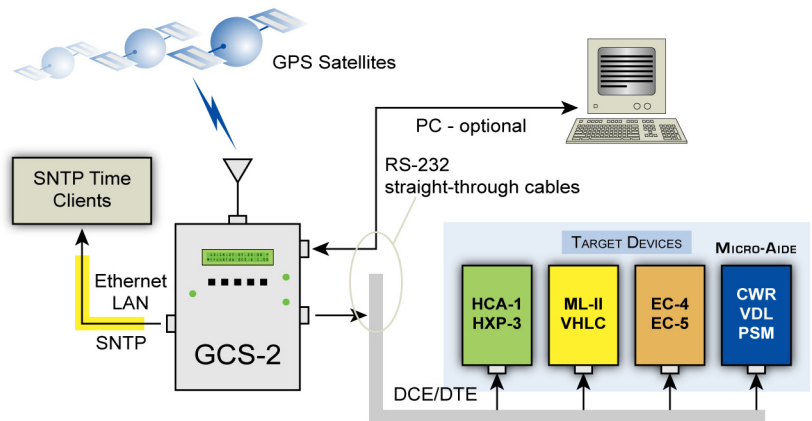

MODE 2 - REQUIRES ETHERNET PORT

Time Source: GPS

Time/Date Control: RS-232 connections using ASCII commands and SNTP multicast

User Interface: optional local or remote PC connection or front panel

SNTP: operates as Time Server

Device Port Access: available using local or remote PC
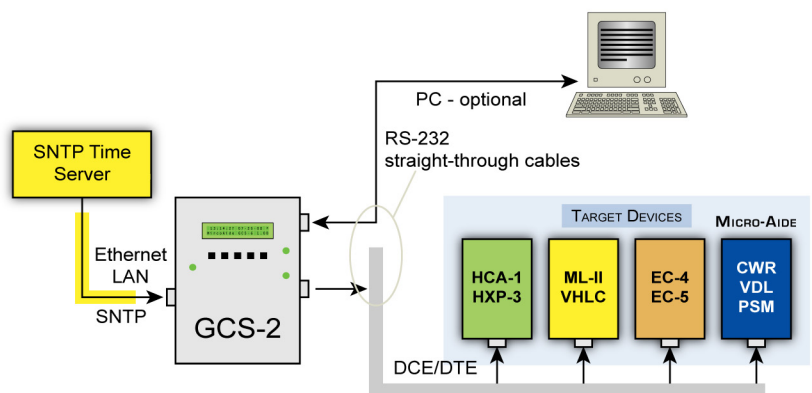

MODE 3 - REQUIRES ETHERNET PORT

Time Source: SNTP Time Server

Time/Date Control: RS-232 connections using ASCII commands

User Interface: optional local or remote PC connection or front panel

SNTP: operates as Time Client

Device Port Access: available using local or remote PC

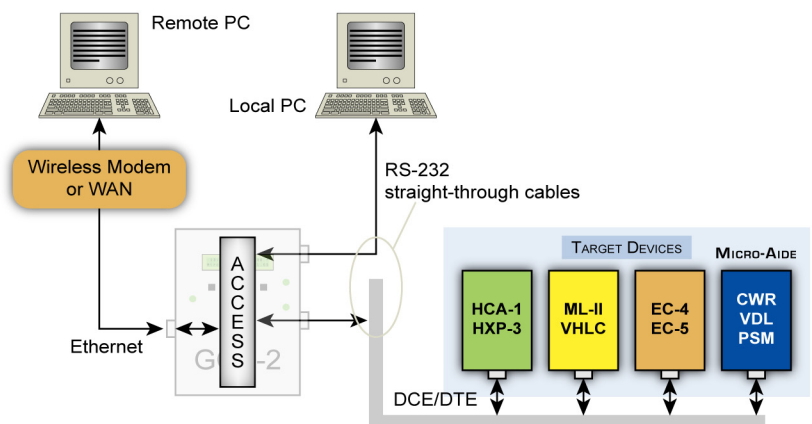## MODE 4 - REQUIRES ETHERNET PORT

Time Source: GPS or SNTP Time Server (not shown)

Time/Date Control: RS-232 connections using ASCII commands, except when accessing selected Target Device

User Interface: optional local or remote PC connection or front panel

SNTP: operates as Time Server or Client

Device Port Access: available using local or remote PC

GCS-2

CLOCK SYNCHRONIZER

MICRO-AIDE

7.1"

5.8"

1.5"

GCS-2

Clock Synchronizer

15:42:07 07-25-08 *
MircoAide GCS-2 1.00

S1 S2 S3 S4 S5
Softkeys

DP2

Adj.
GPS/ Alarm

Ethernet Port

− Alarm
+
N Power
N
B
B

GPS Antenna

DP2 DCE
T/DP1
T/DP1 Term
Run
SW1

DTE
Dev
Boot

ON
1 2 3 4

T/DP1

MICRO-AIDE